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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,544	01/27/2004	Norihiro Kawatoko	00862.023435	9598
5514	7590	10/28/2005	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO			GOLDBERG, BRIAN J	
30 ROCKEFELLER PLAZA			ART UNIT	
NEW YORK, NY 10112			PAPER NUMBER	
			2861	

DATE MAILED: 10/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Ex

Office Action Summary	Application No. 10/764,544	Applicant(s) KAWATOKO, NORIHIRO	
	Examiner Brian Goldberg	Art Unit 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-12 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/13/2004</u> | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 8, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamasaki et al. in view of Kasamatsu. Hamasaki et al. disclose "a temperature detection method of a printing apparatus which prints by using a printhead, comprising: a storage step of storing, in a nonvolatile memory, a previous printing time when the printhead has performed printing operation (col 7 ln 59-63); ...a comparison step of comparing the elapsed time and a predetermined time (col 8 ln 32-36); ...a measurement step of measuring a temperature by using a sensor arranged in at least either of the printing apparatus and the printhead in accordance with the comparison result at said comparison step; and an update step of updating a temperature on the basis of the measured temperature (col 8 ln 41-53)...wherein the printhead has a sensor for measuring a head temperature (1711 of Fig 9)...wherein the temperature includes at least either of an environmental temperature of the printing apparatus and a temperature of the printhead (col 8 ln 52-53)." Thus Hamasaki et al. meet the claimed invention except a time acquisition step, a calculation step as claimed, and a battery as an auxiliary power supply.
3. Kasamatsu teaches "a time acquisition step of acquiring a current time by using a timer which always performs time counting operation by power supply from an auxiliary

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power supply capable of supplying power independently of a main power supply that supplies power for performing printing operation by the printing apparatus (col 5 ln 50-53); a calculation step of calculating a time elapsed after the previous printing time on the basis of the current time and the previous printing time (col 6 ln 64-66); ... wherein the main power supply includes an AC power supply or a DC power supply, and the auxiliary power supply includes a battery (col 5 ln 50-53).” It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to include the time acquisition step by using a timer that uses a battery as an auxiliary power supply and the calculation step of a time elapsed based on the current time. One would have been motivated to so modify Hamasaki et al. for the benefit of making the timer more robust by keeping time, even when the printer power is turned off, and determining an amount of elapsed time based on a present time and a stored time instead of resetting a counter, which simplifies the process by decreasing the number of operational steps.

4. Regarding claim 10, the apparatus limitations set forth in the claim are met by Hamasaki et al. in view of Kasamatsu as set forth above regarding the similarly claimed method steps of claim 1.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamasaki et al. in view of Kasamatsu as applied to claim 1 above, and further in view of Usui. Hamasaki et al. in view of Kasamatsu meet the claimed invention except “wherein at said time acquisition step, a power-on time of the printing apparatus is acquired using the timer.”

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6. Usui teaches "wherein at said time acquisition step, a power-on time of the printing apparatus is acquired using the timer (col 22 ln 52-54)." It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to acquire a power-on time of the printing apparatus using the timer. One would have been motivated to so modify Hamasaki et al. in view of Kasamatsu for the benefit of tracking a passage of time from the preceding power-off time of the printing apparatus.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamasaki et al. in view of Kasamatsu and Usui as applied to claim 3 above, and further in view of Iwasaki et al. Hamasaki et al. in view of Kasamatsu and Usui meet the claimed invention except "wherein at said calculation step, a time elapsed after power-on is calculated from the power-on time and the current time."

8. Iwasaki et al. teach "wherein at said calculation step, a time elapsed after power-on is calculated from the power-on time and the current time (S1003 of Fig 7, col 8 ln 53-55 and col 9 ln 10-12)." It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to calculate a time elapsed after power-on. One would have been motivated to so modify Hamasaki et al. in view of Kasamatsu and Usui for the benefit of determining whether or not a predetermined amount of time has elapsed since the power-on and performing an operation (such as detecting temperature) based on the result.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamasaki et al. in view of Kasamatsu, Usui and Iwasaki et al. as applied to claim 4 above, and further in view of Otsuka et al. Hamasaki et al. in view of Kasamatsu, Usui and Iwasaki

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et al. meet the claimed invention except "wherein the environmental temperature of the printing apparatus is corrected in accordance with the time elapsed after power-on."

10. Otsuka et al. teach "wherein the environmental temperature of the printing apparatus is corrected in accordance with the time elapsed after power-on (col 22 ln 57 – col 23 ln 1)." It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to correct the environmental temperature in accordance with the time elapsed after power-on. One would have been motivated to so modify Hamasaki et al. in view of Kasamatsu, Usui and Iwasaki et al. for the benefit of obtaining a more accurate observation of the environmental temperature of the printing apparatus due to changes in temperature over time.

11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamasaki et al. in view of Kasamatsu as applied to claim 1 above, and further in view of Numata et al. Hamasaki et al. in view of Kasamatsu meet the claimed invention except "a determination step of determining whether or not the printhead has been exchanged."

12. Numata et al. teach "a determination step of determining whether or not the printhead has been exchanged (col 3 ln 8-9)." It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to determine if the printhead has been exchanged. One would have been motivated to so modify Hamasaki et al. in view of Kasamatsu for the benefit of altering the recording of data (such as temperature, recovery operations, or driving of the head) based on a change of printhead.

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13. Claim 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamasaki et al. in view of Kasamatsu. Hamasaki et al. disclose "a temperature detection method of a printing apparatus which prints by using a printhead, comprising: a storage step of storing, in a nonvolatile memory, a previous printing time when the printhead has performed printing operation (col 7 ln 59-63); ...a comparison step of comparing the elapsed time and a predetermined time (col 8 ln 32-36); ...a measurement step of measuring a temperature by using a sensor arranged in at least either of the printing apparatus and the printhead in accordance with the comparison result at said comparison step; and an update step of updating a temperature on the basis of the measured temperature (col 8 ln 41-53)." Thus Hamasaki et al. meet the claimed invention except a time acquisition step and a calculation step as claimed.

14. Kasamatsu teaches "a time acquisition step of acquiring an absolute current time (col 5 ln 50-53); a calculation step of calculating a time elapsed after the previous printing time on the basis of the absolute current time and the previous printing time (col 6 ln 64-66). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to include the time acquisition step and the calculation step of a time elapsed based on the absolute current time. One would have been motivated to so modify Hamasaki et al. for the benefit of making the timer more robust by keeping time, even when the printer power is turned off, and determining an amount of elapsed time based on an absolute present time and a stored time instead of resetting a counter, which simplifies the process by decreasing the number of operational steps.

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15. Regarding claim 12, the apparatus limitations set forth in the claim are met by Hamasaki et al. in view of Kasamatsu as set forth above regarding the similarly claimed method steps of claim 11.

Allowable Subject Matter

16. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. The following is a statement of reasons for the indication of allowable subject matter: Prior art does not disclose or suggest "a temperature correction value...controlled as to be updated in accordance with the determination result" in combination with the remaining claim elements.

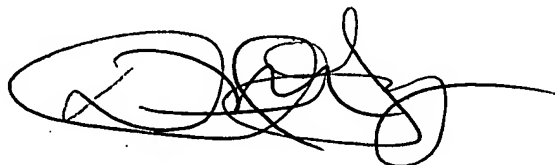
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Goldberg whose telephone number is 571-272-2728. The examiner can normally be reached on Monday through Friday, 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on 571-272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BJG

A handwritten signature in black ink, appearing to read 'D. Gray', with a long horizontal line extending to the right.

DAVID M. GRAY
PRIMARY EXAMINER